



BOROUGH OF JARROW.



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For 1914,

BY

D. M. MCGILLIVRAY. M.B., Ch.B.



JARROW:

SMITH BROS., PRINTERS, WALTER STREET

1915

To the Chairman and Members of the Sanitary Committee.

Gentlemen,

In the absence of your Medical Officer on military work, I have the honour of laying before you the Annual Report for 1914. One striking feature in the returns is the Infantile Mortality Rate, which has reached the lowest level in the history of the town.

The epidemic of Scarlet Fever continued with little abatement well on to the end of the year, and in the last quarter a slight outbreak of Enteric occurred, which, although at first seemed dangerous, soon died out.

I must express my thanks to Mr. J. S. Callis, the chief Sanitary Inspector, for his assistance during a year exceptional in many respects.

I am, Gentlemen,

Your obédient servant,

D. M. MCGILLIVRAY.

March 3rd, 1915.



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ANNUAL REPORT.

PHYSICAL FEATURES AND INDUSTRIES OF THE BOROUGH.

The Town is situated on the South side of the River Tyne, occupying a river frontage, including that of the Slake, of 5,600 yards or 3 miles. It extends Southwards from the river for about 1,800 yards, its total area being 1,064 acres, of which 158 —the Slake— are under water. The River Don on entering the Tyne at Jarrow Slake forms here its Eastern and part of its Southern boundary, which is continued by the County Borough of South Shields and the South Shields Rural District, the Western boundary being the Hebburn Urban District. The general contour of the district is slightly undulating, with a maximum rise at its Southern-most part at Monkton of 101 feet, to 14.7 feet in the North, above sea water level. From West to East, this rise varies from 83 feet in the West to 15 feet in the East. The slope towards the river is greatest in the centre of the town, shading off gradually towards both East and West. The North Eastern Railway line, between Newcastle and South Shields, runs parallel to the river, through about the centre of the town, dividing roughly into a North and South portion. The subsoil is generally of clay, but owing to the natural drainage towards the river, there is as a rule, no great amount of stagnant water, or undue dampness.

The town is entirely a working-class one, there being no residential suburbs. The work is almost solely in connection with the shipbuilding industry, besides which to a much lesser degree there are ship repairing, blast furnaces, steel works, engine works, etc. The exposed and often arduous nature of the work is shown by the high mortality from diseases of the Respiratory System and from Heart Disease, whilst the hazardous nature of the work is shown by the large number of violent deaths, most of which have occurred in the course of their employment.

VITAL STATISTICS, 1914.

POPULATION.

The population to mid-year (June 30th, 1914) is estimated at 36,500, an increase of 1,200 on that of last year. In a fluctuating population depending almost entirely on the condition of work, a correct estimation will always be a matter of great difficulty, especially as ordinary methods of calculation are not applicable. But judging by the state of the shipbuilding yards at present and the demand for houses, one is justified in allowing a substantial increase on the previous year.

Ward Estimation.—For the various Wards the population is estimated as follows:—

North	5000
South	8250
East	5200
West	6250
Grange	6300
Central	5500

36,500

BIRTHS.

Birth Rate.—There were 1181 Births registered within the Borough, compared with 1068 last year. 10 births were transferred from outside districts, making a total of 1191, equal to a Birth Rate of 32.6 per 1000. This being the highest rate recorded since 1908.

Sex and Legitimacy.—In the above total of 1181, there were 585 males and 596 females, 4 males and 6 females in the transferable births, and 589 males and 602 females in the net total. Twenty-three births were returned as illegitimate, 15 males and 8 females, giving a percentage of 1.9, compared with 3.7 last year.

The proportion of male and female births is 1000 : 1022.

Comparison with Country:—

England and Wales	23.6
97 Great Towns (including London)	24.9
145 Smaller Towns	23.6
England and Wales (less 242 towns) ...	21.9
London	24.6
County of Durham	31.1

Comparison with previous years:—

Mean, 1871—1880	45.2
„ 1881—1890	40.3
„ 1891—1900	34.7
„ 1901—1910	32.4
1911	31.1
1912	32.0
1913	30.4
1914	32.6

The following table shows the number of births registered in the various Wards during the different months:

Table showing Births Registered in the various Wards during the different months.

Months.	North Ward.		South Ward.		East Ward		West Ward.		Grange Ward		Central Ward.		Totals		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
January ...	15	6	11	9	4	8	11	15	6	8	7	13	54	59	113
February ...	3	6	6	7	9	7	9	9	4	2	8	7	39	38	77
March ...	5	9	14	11	13	13	9	7	9	7	4	4	54	51	105
April ...	12	6	15	12	6	9	10	11	5	5	10	11	58	54	112
May ...	7	9	6	16	5	12	10	10	6	7	9	11	43	65	108
June ...	11	10	12	12	5	11	7	7	2	6	4	8	41	54	95
July ...	6	6	12	10	6	8	4	6	11	7	5	9	44	46	90
August ...	7	7	11	10	8	14	10	10	7	4	6	7	49	52	101
September ...	7	6	8	16	8	5	7	10	8	4	7	10	45	51	96
October ...	9	12	18	9	9	4	7	6	4	4	5	1	52	36	88
November ...	4	6	10	8	11	10	4	8	11	7	12	9	52	48	100
December ...	10	8	16	6	8	7	7	11	7	2	6	8	54	42	96
Totals.	96	91	139	126	92	108	95	110	80	63	83	98	585	596	1181
	187		265		200		205		143		181		1181		

Number of births actually registered in the district 1181

Number of births transferred from outside areas 10

Total 1191

DEATHS.

Death Rate.—537 Deaths were registered within the Borough during the year, 7 were non-residents and were transferred to their own areas. 85 deaths occurred outside the town and were

transferred to us, making a nett total of 615, equivalent to an annual death-rate of 16.8 per 1000, compared with 16.6 last year.

Sex Distribution.—In the total of 530 deaths actually occurring in and belonging to the district, 270 were males and 260 females. 6 males and 1 female were transferred outwards and 54 males and 31 females inward transfers, or the total of 615 consisted of 324 males and 291 females, which is equal to the proportion of 111 males and 100 females.

Transferable Deaths.—94 per cent. of the 85 deaths occurred in public institutions. The various causes of death and the Wards to which they have been allocated as being their former place of residence are shown in the accompanying table:

**Transferable Deaths, showing Ages and Wards to which
they have been allocated.**

Disease.	under 1 yr	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 & over	Total.	North	South.	East.	West	Grange.	Central.
Enteric Fever	1	...	...	...	1	...	1	...	...	...	...
Phthisis	2	2	2	6	...	12	3	2	1	1	1	4
Other Tuberculous Disease	1	...	...	2	...	3	...	1	1	...	1	...
Cancer...	1	1	6	1	9	...	1	1	3	1	3
Bronchitis	2	2	2	...	...	...	...	...
Pneumonia	1	...	1	1	...	1	4	...	...	2	1	...	1
Heart Disease	1	1	...	2	1	5	2	1	...	...	...	2
Appendicitis	1	...	...	...	...	1	1	...	...	...	...	...
Nephritis, etc.	2	...	2	...	1	...	...	1	...
Puerperal Fever	1	...	...	1	...	1	...	...	...	...
Congenital Debility, etc. ...	3	...	...	...	...	...	...	...	3	...	...	...	1	...	2
Violent Deaths	2	...	4	4	10	...	3	1	3	1	2
Suicides	1	...	...	1	1	...	...	...	...	...
Uncertified	2	...	...	2	...	1	...	...	1	...
Other Defined Diseases	...	1	...	1	1	7	9	10	29	5	4	2	6	3	9
Ill Defined Diseases
Total ...	3	1	1	6	9	15	31	19	85	14	16	8	15	9	23

Deaths in Institutions.—94 deaths occurred in various Institutions, which is equal to 15 per cent. of the total deaths. These Institutions were:

Harton Workhouse	50
Primrose Hill Hospital	12
Palmers' Memorial Hospital	2
Royal Infirmary, Newcastle	9
Sedgefield Asylum	7
Fleming Memorial Hospital, Newcastle ...	3
Hebburn Hall	2
Nine others one each	9

Table showing Deaths of Residents registered in the Borough with the months and Wards
in which they occurred.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	North.	South.	East.	West.	Grange.	Central.
Enteric Fever ...	1	...	...	...	...	...	1	...	...	1	1	1	5	2	...	1	...	...	1
Measles ...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...
Scarlet Fever ...	1	...	2	1	...	...	1	2	...	...	...	...	7	...	5	...	...	1	1
Whooping Cough ...	...	1	...	2	1	...	...	1	...	1	1	...	8	1	1	1	3	1	1
Diphtheria ...	1	...	2	1	...	...	1	1	1	2	1	2	12	2	...	1	3	2	4
Influenza ...	...	2	...	...	...	1	...	...	...	1	...	2	6	1	1	...	2	1	1
Erysipelas ...	...	...	...	...	...	...	1	...	...	...	...	2	3	...	1	1	...	...	1
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	3	3	9	4	4	...	6	2	6	2	6	6	51	9	6	13	6	5	12
Tuberculous Meningitis ...	1	1	1	...	...	...	2	1	...	...	...	...	6	2	1	...	2	...	1
Other Tuberculous Dis. ...	1	...	...	6	1	...	...	...	3	2	3	...	16	2	4	3	...	3	4
Rheumatic Fever ...	...	...	...	...	...	1	...	...	1	...	...	...	2	...	1	...	...	...	1
Cancer... ..	1	2	5	2	1	3	3	2	2	2	2	1	26	3	7	4	5	4	3
Bronchitis ...	3	7	1	2	3	2	...	4	2	6	6	6	42	8	10	4	6	3	11
Pneumonia ...	9	6	8	3	9	2	5	3	4	3	4	7	63	8	11	14	16	4	10
Acute Meningitis ...	1	...	...	...	...	2	1	2	3	...	...	...	9	1	1	3	1	1	2
Heart Disease ...	1	1	2	2	7	1	4	2	...	4	1	...	25	4	6	1	5	6	3
Other Respiratory Diseases ...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1
Diarrhoea ...	1	1	3	1	...	1	5	7	12	2	3	...	36	8	6	10	4	2	6
Appendicitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ...	...	...	2	...	...	...	...	...	1	...	1	...	4	1	1	...	2	...	...
Cirrhosis of Liver ...	1	...	...	1	...	...	1	...	...	...	...	...	3	...	...	...	1	2	...
Nephritis ...	1	2	2	1	2	...	2	...	...	...	3	...	13	3	2	1	2	3	2
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Accidents and Diseases of Pregnancy ...	1	1	...	...	...	1	...	...	...	...	...	...	3	1	...	...	...	2	...
Congenital Debility, etc. ...	3	4	3	7	5	1	5	5	4	3	5	4	49	12	5	9	9	6	8
Violent Deaths ...	2	1	...	1	1	...	4	2	2	3	2	2	20	3	2	2	7	2	4
Suicide ...	...	1	...	...	...	...	...	...	...	...	1	...	2	...	...	...	1	1	...
Uncertified ...	4	...	2	4	1	1	4	1	3	...	2	2	24	3	6	2	3	3	7
Other Defined Diseases ...	8	10	4	7	4	4	3	10	3	5	7	5	70	11	13	8	10	15	13
Ill Defined Diseases ...	1	3	2	1	3	1	2	...	4	2	3	1	23	4	2	2	7	5	3
Totals	45	46	48	46	42	22	51	46	51	39	52	42	530	89	93	78	99	71	100

NOTE. For the complete table with ages and Wards of the total number of Deaths, whether registered within or without the Borough see L.G.B. Table No. III. in Appendix.

All the above Institutions except Palmers' Hospital are situated outside the Borough. Deaths occurring in Primrose Hill Hospital, although outside, are registered as within the area.

Comparison with England generally:

England and Wales	13.9
97 Great Towns (including London)	14.6
145 Lesser Towns	12.8
England and Wales (less 212 towns) ...	13.3
London	14.4
County of Durham	14.9

Comparison with previous years:

Mean, 1871-1880	23.9
„ 1881-1890	21.1
„ 1891-1900	19.4
„ 1901-1910	17.9
1911	16.7
1912	16.7
1913	16.6
1914	16.8

Coroner's Inquests.—The Coroner held 37 inquests during the year, equivalent to 6 per cent. of the total deaths, compared with 4.5 per cent. last year.

Uncertified Deaths.—24 deaths were returned as uncertified equal to 3.9 per cent., compared with 4.5 per cent. last year.

Natural Increase of the Population.—The number of births in excess of deaths is 576, compared with 487 last year and 528 the previous year.

The following table shows the number of deaths of residents registered within the Borough, with the months and Wards in which they occurred:

INFANTILE MORTALITY.

There were 129 deaths in infants under one year, equal to 20.9 per cent. of the total deaths, compared with 134 last year. 211 deaths occurred in children under 5 years equal to 34.3 per cent.

Infantile Mortality Rate, or the number of deaths under one year to every 1000 registered births is 108, compared with 124 last year. One notes with much satisfaction that this is the lowest figure by far in the history of the Borough—the previous best being 116 in 1912—and now compares favourably with the rest of the country.

Comparison with England and Wales generally:

England and Wales	105
97 Great Towns	113
145 Smaller Towns	104
England and Wales (less 242 towns)	93
London	103
County of Durham	134
Jarrow	108

Comparison with previous Rates (Jarrow):

Mean, 1871–1880	175
„ 1881–1890	152
„ 1891–1900	158
„ 1901–1910	142
1911	126
1912	116
1913	124
1914	108

Comparison of Rates in the Various Wards.—The rates recorded in the different Wards vary within fairly wide limits. It is lowest in the South Ward with 64—the Grange being 97 -

and highest in the Central and North Wards with 138 and 139 respectively.

The following table shows the Infantile Mortality Rates in the several Wards during the last 10 years:

Infantile Mortality Ward Rate during last 10 years.

Ward.	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
North ..	204	204	174	176	166	148	148	104	158	139
South ...	153	104	69	90	114	109	125	106	109	64
East ...	130	193	206	139	227	163	159	88	102	115
West...	122	128	98	105	129	108	102	153	123	117
Grange ...	133	103	81	125	55	129	85	85	97	97
Central ...	109	166	125	163	184	105	132	146	160	138
Borough ...	143	148	121	130	148	126	126	116	124	108

Chief Causes of Death in Infants under One Year of age:—

	1913.	1914.
Diphtheria	1	2
Whooping Cough	—	4
Diarrhœa	22	23
	— 23	— 29
Bronchitis	11	10
Pneumonia	23	19
	— 34	— 29
Premature Birth	23	26
Debility, etc.	25	24
Congenital Malformation	6	2
	— 54	— 52
Meningitis	5	4
Tubercular Diseases	2	4
Other Causes	16	11
	— 23	— 19
	134	129

In analysing the above figures it will be seen that there is an increase of 6 deaths in Zymotic diseases—4 whooping cough, 1 diarrhœa, and 1 diphtheria; a decrease of 5 deaths in the section of acute respiratory diseases: bronchitis and pneumonia; while the deaths from congenital defects—premature birth, debility, congenital malformation, remain practically unchanged.

The following table shows the various causes of deaths in the different months and Wards. For more detailed information as to age and disease the reader is referred to the L.G.B. Table IV. of the Appendix to Vital Statistics. Page 62.

Infantile Mortality Table, showing causes of death in Infants under one year, with months and Wards:

	January.	February.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.	North.	South.	East.	West.	(Range.	Central.
Whooping Cough	...	...	...	1	...	...	...	...	1	1	1	...	4	1	...	...	2	1	...
Diphtheria	...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	...	...	...	...
Phthisis	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
Tubercular Meningitis	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...
Other Tubercular Diseases	...	...	...	1	...	...	...	...	...	1	...	...	2	...	...	...	...	1	1
Bronchitis	2	2	...	...	...	...	...	1	1	2	2	...	10	2	1	1	1	2	3
Acute Meningitis	1	...	...	...	...	1	1	1	...	...	...	...	4	...	...	2	...	...	2
Pneumonia	2	3	5	...	2	1	2	1	...	...	1	2	19	3	3	4	5	...	4
Diarrhoea	1	...	1	1	...	...	2	10	4	2	2	...	23	4	5	8	2	2	2
Nephritis	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...
Congenital Debility	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
including Premature Birth	3	4	3	8	5	2	5	5	5	3	5	4	52	12	5	6	13	10	6
Uncertified	2	...	...	1	...	...	1	2	...	...	...	...	6	...	2	1	...	1	2
Other defined Diseases	...	2	...	...	...	...	...	...	...	...	1	...	3	...	1	...	...	1	1
Ill-defined Diseases	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	...	...	...
Total	11	12	10	12	7	4	12	20	11	11	13	6	129	26	17	23	24	18	21

Notification of Births Act.—Under this Act 1162 notifications were received, 497 being by Medical Practitioners and 665 by Midwives practising in the district. From a comparison of the number of births registered it will be seen that a few births still escape notification, and in several instances a few days elapse before they are received. All cases notified are visited by the Lady Health Visitor, who carried out her work with admirable tact and skill. Valuable advice is given on the feeding and nursing of infants and good results will certainly follow, especially when this class of work is more fully extended and organised.

For details as to the work done in this connection by the Lady Health Visitor see “Sanitary Administration of the District” page 71.

Infant and Child Mortality.—Although the Infantile Mortality Rate this year is the lowest on record in our history, a critical examination of the present returns reveals the fact that there is still much need for further improvement. It will be seen that out of 211 deaths in children under 5 years, infectious diseases accounted for 71; while acute diseases of the respiratory system, which might be included for our purpose as acute infective diseases, number 51, giving a combined total of 122 or nearly 58 per cent.

26 deaths were returned as due to premature birth, equal to 20 per cent. of the total under one year. The group: debility, atrophy, and marasmus, total 24, including 11 which died within one month of their birth, so that 37 deaths were the result of conditions operating before or during birth and, in no way attributable to local circumstances.

Thus the diminution of the Infantile Mortality depends very largely on the prevention of infective diseases, their early investigation, isolation and treatment when prevention fails. Improvement in the sanitary conditions, visitation by Health Visitors and other competent persons, and above all education of the people will do much to improve the evils existing at present and which produced such unsatisfactory results in past years.

Maternity and Child Welfare.—Dealing with this subject a circular was received dated 30th July, from the Local Government Board along with the scheme prepared by the Board's Medical Officer. As the views and intentions of the Board are clearly set forth in these communications I simply reprint them as received.

CIRCULAR.

County Councils and
Sanitary Authorities.

Local Government Board,

Whitehall, S.W.,

30th July, 1914.

MATERNITY AND CHILD WELFARE.

Sir,

I am directed by the Local Government Board to state that an estimate has been laid before Parliament for a grant to be distributed by the Board in aid of the expenditure of local authorities and voluntary agencies in respect of institutions or other provision for maternity and child welfare.

This grant, if voted by Parliament, will be made in aid of expenditure in respect of clinics, dispensaries or other institutions primarily concerned with the provision of medical and surgical advice and treatment, as well as in respect of the salaries of health visitors and other officers engaged for this work.

The Local Government Board have in recent years devoted considerable attention to questions connected with infant welfare and they have observed with much satisfaction that efforts have been made by many local authorities and voluntary agencies, to deal with the matter. These efforts have undoubtedly helped to secure improved conditions for children and have played an important part in the campaign for the reduction of infantile mortality.

It is evident from the Reports issued from the Medical Department of the Board and those of many Medical Officers of Health that more extended and systematic measures than have hitherto been generally adopted are necessary, and it is hoped that the grant of assistance from the Exchequer will stimulate those local authorities who have not yet taken action to give the matter their earnest consideration and will encourage those already engaged in the work to develop it still further.

Up to the present local authorities, in their infant welfare work, have concerned themselves more especially with the child in its first year of life: the matter is, however, one which needs to be dealt with on a more comprehensive basis and it is clearly desirable that there should be continuity in dealing with the whole period from before birth until the time when the child is entered upon a school register, i.e., the register of a public elementary school, nursery school, crèche, day nursery, school for mothers, or other school.

Extension of the existing work is accordingly needed in two directions; on the one hand it is necessary that measures should be taken for securing improved ante-natal and natal conditions, and on the other, provision should be made for continuing the work in relation to children beyond the first year of life.

The accompanying memorandum, which has been prepared by the Board's Medical Officer with a view to assisting the formulation of schemes or extending the work already undertaken, sets forth in outline the matters needing consideration in the preparation of a comprehensive scheme. It will be seen that the memorandum contemplates that medical advice and, where necessary, treatment should be continuously and systematically available for expectant mothers and for children till they are entered on a school register, and that arrangements should be made for home visitation throughout this period.

The work of home visitation is one to which the Board attach very great importance and in promoting schemes on the

lines laid down in the accompanying statement the first step should be the appointment of an adequate staff of Health Visitors.

It will be desirable, at all events in the case of the larger urban authorities, to provide consultation centres which may fitly be termed Maternity Centres, to which expectant mothers and mothers with infants and little children may be referred for advice and treatment: the operation of these Maternity Centres will be rendered most effective if co-operation is secured with the midwives of the district and with any local hospital having a maternity department.

It will be necessary to arrange for a medical officer to be in charge of such a Centre and for the attendance at the Centre of members of the staff engaged in home visiting. Careful records, for which the medical officer should be responsible, will need to be kept, and in regard to children the records should be in such a form that they may subsequently be available for the information of the School Medical Officer when the child is entered at a school.

For the rural and smaller urban areas the Board think it will generally be found desirable to develop a county organisation, but in all cases the county work should be intimately related with that of the local sanitary authority, and on the other hand any work separately undertaken by a sanitary authority should be co-ordinated with the county scheme.

It is not expected that all local authorities will be able at once to initiate complete schemes, but it is important that any partial arrangements that may be made shall be such as can ultimately form part of a more extended organisation.

Subject to the estimate now before Parliament being accepted by Parliament, the Board will be willing to consider applications for grants in respect of any work falling within the scope of the scheme outlined in the memorandum accompanying this letter: the grants will normally amount to one-half the approved expenditure on any of these purposes, but may be less if the Board so decide.

Grants to institutions of the nature of Schools for Mothers, the object of which is primarily educational, which provide training and instruction for mothers in the care and management of infants and little children, and which may include systematic classes, or home visiting, or infant consultations (the provision of specific medical and surgical advice and treatment, if any, being only incidental), will be administered by the Board of Education. Any cases of doubt or difficulty will be investigated by a Joint Committee of Officers of the two Boards, which will include women Medical Officers.

In sending a copy of this circular to voluntary agencies engaged in infant welfare work, the Board will state that applications for grants in respect of voluntary work may be made by a voluntary agency either directly or through a local authority.

The grant now presented to Parliament will be appropriated in aid of the expenditure of the half-year ended September 30th, 1914, and applications for grants should be accompanied by an account of the work undertaken by the authority, and by a detailed statement of the expenditure incurred, certified by the officer of the local authority in charge of the accounts.

I am to add that the Board will be happy to afford advice and assistance to local authorities in the initiation of schemes or the extension of existing schemes.

I am, Sir,

Your obedient servant,

H. C. MONRO,

Secretary.

MEMORANDUM.

MATERNITY AND CHILD WELFARE.

A complete scheme would comprise the following elements, each of which will, in this connection, be organised in its direct bearing on infantile health.

1. Arrangements for the local supervision of Midwives.

2. Arrangements for—

Ante-Natal.

(1) An Ante-natal Clinic for expectant mothers.

(2) The home visiting of expectant mothers.

(3) A Maternity Hospital or beds at a hospital, in which complicated cases of pregnancy can receive treatment.

3. Arrangements for—

Natal.

(1) Such assistance as may be needed to ensure the mother having skilled and prompt attendance during confinement at home.

(2) The confinement of sick women, including women having contracted pelvis or suffering from any other condition involving danger to the mother or infant, at a hospital.

4. Arrangements for—

Post-Natal.

(1) The treatment in a hospital of complications arising after parturition, whether in the mother or in the infant.

(2) The provision of systematic advice and treatment for infants at a Baby Clinic or Infant Dispensary.

(3) The continuance of these Clinics and Dispensaries, so as to be available for children up to the age when they are entered on a school register, i.e. the register of a Public Elementary School, Nursery School Crèche, Day Nursery, School for Mothers or other school.

(4) The systematic home visitation of infants and of children not on a school register as above defined.

Local Government Board,
Whitehall, S.W.

July, 1914.

NOTIFIABLE DISEASES.

Number Notified.—829 notifications were received during the year, this being largely due to the very severe epidemic of Scarlet Fever. The diseases notified were:—

Scarlet Fever	474
Diphtheria, including Membranous Croup	63
Enteric Fever	32
Erysipelas	37
Acute Poliomyelitis	5
Ophthalmia Neonatorum	12
*Chicken Pox	16
Pulmonary Tuberculosis	143
Tuberculosis, other than Pulmonary	47
	829

* This disease was added to the list of notifiable diseases in November for a period of six months as a precautionary measure during the present crisis.

Monthly Notifications received.—The following table shows the number of cases of each disease notified during the different months.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Poliomyelitis.	Chicken Pox.	Ophthalmia Neonatorum	Erysipelas.	Tuberculosis Pulmonary.	Tuberculosis Non-Pulmonary	Total
January	... 66	6	1	...	...	...	7	18	6	104
February	... 42	7	3	1	...	...	2	16	2	73
March	... 45	9	...	...	...	2	1	21	5	83
April	... 37	6	1	...	...	2	3	6	2	57
May...	... 64	7	1	...	...	1	2	8	5	88
June...	... 37	2	...	...	...	...	3	7	5	54
July ...	... 33	6	2	1	...	2	3	15	6	68
August	... 42	3	...	1	...	...	3	15	4	68
September	... 40	7	1	1	...	1	3	11	2	66
October	... 30	4	6	1	...	1	3	11	4	60
November	... 18	4	7	...	1	3	1	3	2	39
December	... 20	2	10	...	15	...	6	12	4	69
Totals	... 474	63	32	5	16	12	37	143	47	829

Age and Ward Distribution.—This is shown under the separate diseases.

Notifications received during last 10 years.

Disease.	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Scarlet Fever ...	67	38	55	40	27	61	77	59	273	474
Diphtheria ...	22	21	27	24	27	61	42	43	43	63
Enteric Fever ...	34	18	9	8	16	2	9	10	9	32
Erysipelas ...	43	27	35	21	23	32	17	18	18	37
Small-pox ...	13	...	...	...	...	...	...	...	...	...
Chicken-pox ...	...	...	...	...	...	...	...	...	...	16
Puerperal Fever ...	...	...	...	...	2	...	...	...	1	...
Poliomyelitis ...	...	...	...	...	...	...	...	1	1	5
CerebroSp.Fever ...	...	...	...	...	...	...	1	1	...	...
Continued Fever ...	5	4	2	...	...	...	...	...	...	...
Typhus ...	...	...	...	...	...	...	...	...	...	...
Ophthalmia ...	...	...	...	...	...	...	...	...	...	12
*Tuberculosis Pulmonary ...	15	8	14	8	31	43	47	87	177	143
Tuberculosis non-Pulmonary ...	...	...	...	...	...	...	...	...	115	47
Totals ...	199	116	142	101	126	199	193	219	637	829

*Not compulsory notifiable till 1912.

Zymotic Mortality.—65 deaths were due to the seven principal Zymotic Diseases, compared with 45 last year. The Zymotic Mortality Rate is 1.77, compared with 1.2 in 1913. The rates for the County of Durham were 2.2 and 1.85 for the same periods. These deaths were:

	1913	1914.
Diarrhoea	32	31 (under 2 years).
Measles	5	1
Diphtheria	5	12
Enteric Fever	1	6
Scarlet Fever	1	7
Whooping Cough	1	8
Small-Pox	Nil.	Nil.
	—	—
	45	65

Deaths from other Notifiable Diseases.—3 deaths were due to Erysipelas.

The following table shows the deaths from the seven principal Zymotic Diseases with the Wards in which they occurred.

Zymotic Deaths showing Wards.

Disease	Central Ward.	North Ward.	South Ward	East Ward	West Ward.	Grange Ward.	Total.
Measles ...	...	...	1	...	...	...	1
Whooping Cough ...	1	1	1	1	3	1	8
Scarlet Fever ...	1	...	5	...	...	1	7
Diphtheria ...	4	2	...	1	4	1	12
Diarrhoea ...	6	6	5	9	3	2	31
Enteric Fever ...	1	2	1	1	1	0	6
Small-pox ...	...	...	...	...	...	...	Nil.
Total ...	13	11	13	12	11	5	65

The following table shows the same diseases with the months in which they occurred.

Zymotic Deaths showing Months.

Month.	Measles.	Whooping Cough.	Diphtheria including Membranous Croup.	Scarlet Fever	Enteric Fever.	Diarrhoea	Small-pox	Total
January	1	1	1	1	...	4
February	...	1	...	...	...	1	...	2
March	2	2	...	3	...	7
April	2	1	1	...	1	...	5
May	1	...	...	...	...	...	1
June	1	...	...	...	1	...	2
July	1	1	1	5	...	8
August	1	...	1	11	...	13
September	1	1	1	2	...	4	...	9
October...	...	1	2	...	1	2	...	6
November	...	1	1	...	1	2	...	5
December	2	...	1	...	...	3
Total ...	1	8	12	7	6	31	...	65

Both the above tables explain themselves and require no special comment.

SCARLET FEVER.

474 cases of Scarlet Fever were notified during the year, compared with 273 last year. This disease, which became epidemic in the later months of 1913, continued with very slight abatement up to the last quarter of the present year. It reached its maximum in January when 66 cases occurred, falling slightly in February, March and April, rising again in May to 64. Then there remained a fairly constant average number of between 30 and 40 cases up to the month of November, when for the first time in 13 months it fell to 20 notifications.

On the whole, the type continued to be a mild one, but occasionally one met cases with severe throat symptoms of the septic type and these in seven instances ended in a fatal issue.

One satisfactory feature was the large number of cases removed to Hospital. 423, or nearly 90 per cent., were treated in the two institutions, compared with 72 per cent. last year. The Schools Closing Order of 11th December, 1913, remained in force till January 11th, and after that it was not found necessary to issue any further closing orders.

Scarlet Fever Table showing Months and Wards.

Months.	North Ward.	South Ward	East Ward.	West Ward.	Grange Ward.	Central Ward.	Total.
January ...	2	31	7	16	6	4	66
February ...	5	7	10	8	7	5	42
March ...	6	17	...	8	8	6	45
April ...	3	10	1	14	5	4	37
May ...	5	21	5	8	18	7	64
June ...	3	8	...	8	9	9	37
July ...	4	12	4	3	6	4	33
August ...	5	7	2	5	9	14	42
September ...	3	10	5	11	7	4	40
October ...	4	17	2	3	3	1	30
November ...	2	4	4	4	4	...	18
December...	...	8	...	7	3	2	20
Total ...	42	152	40	95	85	60	474

Scarlet Fever Table showing Ages and Months.

Months.			under 1 yr	1-5.	5-15.	15-25.	25-45.	45-65	65 & over.	Total.
January	...	...	1	16	40	6	1	2	...	66
February	...	...	...	10	30	2	...	...	...	42
March	...	...	...	7	33	5	...	...	...	45
April	...	...	...	9	26	1	1	...	...	37
May	...	...	...	10	51	3	...	...	...	64
June	...	...	1	6	26	4	...	...	...	37
July	...	...	...	7	26	...	...	...	...	33
August	...	...	1	10	26	4	1	...	...	42
September	...	...	...	12	26	1	1	...	...	40
October	...	...	...	7	18	3	2	...	...	30
November	...	...	...	3	13	...	...	2	...	18
December	...	...	...	5	13	2	...	...	...	20
Totals	...	...	3	102	328	31	6	4	...	474

From the above tables it will be seen that the South Ward recorded by far the largest number of cases, the West and Grange being second and third with the East Ward the least affected.

Deaths.—Seven deaths occurred giving a death-rate of 0.19, as compared with 0.22 for the County of Durham. Five were in the South Ward, one each in the Grange and Central Wards.

ENTERIC FEVER.

32 cases were notified as suffering from this disease, compared with 9 last year. Up to the month of September the notifications continued on ordinary lines, but during the last quarter a slight outbreak occurred. In spite of the most careful investigation no connection could be traced between the different cases

and fortunately since the end of the year it has died out rapidly. The Wards, as seen in the accompanying table, were chiefly the West and Central, with 11 and 10 respectively. It is worthy of note that in not a single instance was a case of Enteric Fever notified from a house supplied with the water-carriage system and proving, if further proof be necessary, that the incidence of this disease depends largely on the methods of sewage disposal in any district.

Death Rate.—6 deaths occurred, including one from an outside area, giving a death-rate of 0.16, compared with 0.11 for the County. The Wards were: North two and one each in the South, East, West and Central Wards.

30, or 93 per cent. of the cases, were removed to Hospital.

Enteric Fever, showing Months and Wards.

Month.		North Ward.	South Ward	East Ward.	West Ward.	Grange Ward.	Central Ward.	Total.
January ...	...	...	...	...	...	1	...	1
February ...	...	...	...	...	...	...	3	3
March ...	...	...	...	...	...	...	...	...
April ...	...	...	...	...	1	...	...	1
May ...	...	1	...	...	...	...	...	1
June ...	...	...	...	...	...	...	...	...
July ...	...	1	...	...	...	...	1	2
August ...	...	...	...	...	...	...	...	...
September	...	...	...	...	1	...	...	1
October ...	...	...	1	...	3	...	2	6
November	...	1	1	1	3	1	...	7
December	...	...	3	...	3	...	4	10
Total ...	...	3	5	1	11	2	10	32

Enteric Fever showing Months and Ages.

Months		under 1 yr	1-5.	5-15	15-25.	25-45	45-65.	65 & over.	Total
January	1	...	...	1
February	2	1	...	...	...	3
March
April	1	...	...	1
May	1	...	...	1
June
July	1	1	...	2
August
September	1	...	...	...	1
October	2	...	4	...	...	6
November	2	3	2	...	7
December	8	...	2	...	...	10
Totals	12	4	13	3	...	32

DIPHTHERIA AND MEMBRANOUS CROUP.

There were 63 cases notified, compared with 43 last year. There was no special outbreak during the year, the monthly average being 5-6 cases. The South and Central Wards were chiefly affected, returning 19 and 15 cases respectively.

Diphtheria, showing Months and Wards.

Months	North.	South	East	West.	Grange	Centtal	Totals.
January ...	...	3	1	2	...	...	6
February ...	...	2	...	1	2	2	7
March ...	...	2	1	...	1	5	9
April ...	...	1	2	1	1	1	6
May ...	1	4	...	...	2	...	7
June ...	...	...	...	...	1	1	2
July ...	...	2	1	1	1	1	6
August ...	1	...	...	...	...	2	3
September ...	...	1	1	3	1	1	7
October ...	2	1	...	1	...	...	4
November...	1	3	...	...	...	...	4
December ...	...	...	...	...	...	2	2
Totals ...	5	19	6	9	9	15	63

Diphtheria, showing Ages and Months.

Months.		under 1 yr	1-5.	5-15.	15-25.	25-45.	Totals.
January ...	...	...	2	3	1	...	6
February ...	...	...	1	3	2	1	7
March ...	...	...	6	2	...	1	9
April ...	...	...	3	2	1	...	6
May ...	...	...	2	3	1	1	7
June ...	...	...	...	1	1	...	2
July ...	...	...	4	2	...	...	6
August ...	...	...	1	2	...	...	3
September...	...	...	3	3	1	...	7
October ...	...	1	1	2	...	...	4
November ...	...	1	...	2	1	...	4
December...	...	...	1	1	...	...	2
Totals ...	...	2	24	26	8	3	63

Death-Rate.—There were 12 deaths, equal to a death-rate of 0.32, that for the County being 0.23. The deaths occurred in the following wards:—Two in North, one each in the East and Grange, four each in West and Central.

Ten cases only were removed to Hospital, equal to 15.8 per cent. of the total notified.

DIARRHŒA.

36 deaths were due to Diarrhœa, compared with 32 last year. 31 of the 36 were in infants under 2 years. The death-rate per 1000 is 0.98, compared with 0.90 last year, that for the County being 1.12.

The following table shows the Ages, Months and Wards in which the deaths occurred.

Table showing Months, Ages and Wards.

Months.	under 1 yr	1-2	2-5	5-45	45-65	over 45	Total	North.	South	East	West.	Grange.	Central
January ...	1	...	...	...	...	...	1	...	...	...	1	...	...
February ...	...	1	...	...	...	...	1	1	...	...	...	...	...
March ...	1	2	...	...	...	...	3	...	...	2	...	...	1
April ...	1	...	...	...	...	...	1	...	1	...	...	...	...
May ...	...	...	...	...	...	...	...	...	...	...	...	...	...
June ...	...	1	...	...	...	...	1	...	...	...	...	1	...
July ...	2	3	...	...	...	...	5	2	...	...	1	...	2
August ...	10	1	1	...	...	...	12	4	1	4	1	1	1
September ...	4	...	2	...	1	...	7	1	4	2	...	...	...
October ...	2	...	...	...	...	...	2	...	...	1	...	...	1
November ...	2	...	...	...	...	1	3	...	...	1	1	...	1
December ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	23	8	3	...	1	1	36	8	6	10	4	2	6

On this subject of deaths from Epidemic Diarrhœa, I reprint the following extracts from a circular of the Local Government Board, dated 10th July, in which they indicate the more important methods of prevention of this disease.

Domestic Precautions.

In giving advice to mothers as to the prevention of Diarrhœa, stress should be laid on methods of storing milk and other food in the dwelling. Milk vessels should be properly cleansed and scalded, kept cool by being placed in water or wrapped in a damp cloth and should be covered (e.g. with a square of butter

muslin), weighted at the corners with shot or sand. The provision of a wholesome place for the storage of food, ventilated to the outside air should be secured wherever practicable. It is important to emphasize the point that any domestic uncleanness and the preparation of food for the infant with unwashed hands may lead to serious consequences. Any action that is necessary under 46 or 91 of the Public Health Act, 1875, should be taken with reference to insanitary conditions in and about the house.

Sanitation of Closets, Yards and Streets.

Domestic attempts at cleanliness may be rendered inoperative by conditions outside the house and it is most important that these conditions should receive attention from the Council. Unpaved streets and yards should, where necessary, be paved and in particular all accumulation of refuse in the neighbourhood of dwellings should be promptly and efficiently removed. These accumulations provide breeding grounds for flies, and are otherwise open to serious objection. It is therefore essential to the health of a district that there should be arrangements for the frequent removal of house, stable and street refuse, and the contents of privies and other closets on the conservancy system and for the disposal of refuse and excrement under sanitary conditions. But however carefully closets on the conservancy system are emptied and cleansed the conditions associated with them in urban communities are generally a menace to the public health and especially to the health of children; and the Board would urge that wherever a sufficient sewer and water supply are available, fresh water-closets supplied with flushing cisterns should be substituted for existing closets on the conservancy system and provided in all new buildings. In connection with this matter attention should be drawn to the provisions of Section 39 of the Public Health Acts Amendment Act, 1907. In the best administered districts conservancy closets and ashpits have given place to fresh water closets and movable ashbins with covers, and house refuse is removed in properly covered carts by the Council's own workmen under the superintendence of the Surveyor

at regular intervals and never less frequently than once a week. If the refuse is not burnt it should be disposed of in places remote from dwellings and should be kept properly covered with earth. In many districts all refuse can be disposed of in a destructor.

Prevention of Flies.

The Board are advised that the exact share borne by flies, in conveying the infection of epidemic diarrhoea cannot yet be stated. It would be a mistake with our present knowledge, to assume that the problem of the prevention of this disease is limited to the destruction of flies. It is concerned also with the personal cleanliness of the mother, who has to prepare the infants' food, and with the cleanliness of the house, the backyard, the court, and the street, from which infective matter may obtain access to the infants' food, with or without the intermediation of flies. But for practical purposes the number of flies in the summer months may be regarded in towns as a valuable index, under present conditions of the possibilities of contamination of food by pathogenic microbes or by decomposing organic matter, especially in districts in which privies and pail closets persist and in which accumulations of house refuse or stable refuse are permitted. It should be remembered in this connection that the ova of the fly, when deposited on organic matter, may develop in hot weather through the various stages to the adult insect in little more than a week. Hence the importance of the frequent cleansing of receptacles for house refuse and manure above alluded to. For the prevention of flies it is essential to deal with their breeding places. Destruction of flies in a dwelling is, however, also an important additional measure, and may be secured by fly-traps, fly-catching papers, or in other ways. An efficacious method is the use of saucers containing a solution of formalin (one teaspoonful to the half-pint of water, or milk and water) and a little sugar; a small piece of bread being placed in the saucer as a place for flies to alight on and drink. In living rooms these should be left out overnight, all other vessels containing fluid being removed or covered over.

MEASLES.

During the greater part of the year the Borough has been comparatively free from this disease and only one death occurred in the South Ward. The death-rate is 0.02, last year being 0.14 and the County 0.17 for 1914.

WHOOPING COUGH.

There were 8 deaths returned as Whooping Cough, against 1 last year, giving a death-rate of 0.21 per 1000, compared with 0.36 for the County of Durham. The Wards in which these deaths occurred were: West 3, and one each in the South, North, East, Grange and Central.

ACUTE ANTERIOR POLIOMYELITIS.

*Five cases were notified, one each in the months of February, July, August, September and October. The Wards were: South 4, and West 1.

OPHTHALMIA NEONATORUM.

Twelve cases were reported in the following months: March 2, April 2, May 1, July 2, September 1, October 1, November 3. The Wards were: North 1, South 2, East 3, West 4, Central 2.

SMALL-POX.

No cases were notified.

ERYSIPELAS.

There were 37 cases notified, compared with 18 last year. The months were:

January	7	July	3
February	2	August	3
March	1	September	3
April	3	October	3
May	2	November	1
June	3	December	6

The Wards were: North 4, South 8, East 3, West 6, Grange 9, Central 7.

Three deaths occurred: one each in the South, West and Central Wards.

CHICKEN-POX.

This disease was placed on the list of compulsory notifiable diseases in November and 16 cases were notified. The Wards were: North 5, West 10, East 1.

FATAL DISEASES, 1912-13-14.

DEATHS.				1912	1913	1914
All causes	...	...	...	575	587	615
Seven Principal Zymotic Diseases	...	...	...	50	45	65
Small-pox	...	...	...	...	...	...
Measles	...	...	...	13	5	1
Whooping Cough	...	...	...	18	1	8
Diphtheria	...	...	...	5	5	12
Enteric	...	...	...	1	1	6
Scarlet Fever	...	...	...	1	1	7
Diarrhoea	...	...	...	12	32	31
Phthisis	...	...	...	40	53	63
Bronchitis, Pneumonia, &c.	...	...	...	135	131	111
Heart Disease	...	...	...	44	44	30
Injuries	...	...	...	30	15	30
All other causes	...	...	...	276	299	316

For more detailed information see Tables II. and IV. of Appendix, pages 60 and 62.

ACUTE RESPIRATORY DISEASES.

Bronchitis and Pneumonia accounted for 111 deaths, compared with 131 last year, equal to 18 per cent. of the total deaths.

The accompanying table shows the deaths from diseases of the respiratory organs (excluding Phthisis) with the ages and Wards in which they occurred.

Deaths from Acute Respiratory Diseases (Pneumonia and Bronchitis) with Ages, Wards and Months.

Month	under 1 yr.	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 & over	Total	North	South	East	West	Grange	Central
January	...	4	2	...	...	1	3	2	1 13	1	3	3	2	...	4
February	...	5	3	1	...	...	1	1	2 13	2	2	1	3	1	4
March	...	5	...	1	...	...	1	2	1 10	1	3	1	1	2	2
April	1	...	...	1	...	2	2 6	2	1	2	1	...	...
May...	...	2	2	3	1	1	1	...	2 12	1	1	3	4	...	3
June...	...	1	...	...	...	...	1	2	1 5	1	1	2	1	...	...
July	2	...	1	...	...	1	1	1 6	1	...	2	2	...	1
August	...	2	...	1	2	...	...	1	1 7	2	...	...	3	1	1
September	...	1	...	1	...	...	1	1	3 7	...	2	1	2	1	1
October	...	2	3	...	1	...	1	...	2 9	4	1	2	...	2	...
November	...	3	1	...	...	...	2	1	3 10	1	3	1	1	...	4
December	...	2	2	...	1	...	4	1	3 13	2	4	2	3	...	2
Total	...	29	14	8	5	3	16	14	22 111	18	21	20	23	7	22

Pneumonia.—This disease again stands high in the list of fatal diseases, causing 67 deaths, compared with 83 last year. 35 of the 67 occurred in children under 5 years or 52 per cent. while 19 or 28 per cent. in children under 1 year.

The age mortality is:—

Under 1 year	19
1 and under 2 years	10
2 „ 5 „ 	6
5 „ 15 „ 	1
15 „ 25 „ 	3
25 „ 45 „ 	13
45 „ 65 „ 	9
65 and upwards	3—67

The Ward mortality is:—

North	8
South	11
East	16
West	17
Grange	4
Central	11—67

Bronchitis.—44 deaths were registered as due to Bronchitis, compared with 45 last year. 16 of the 44 occurred in children under 5 years, equal to 35 per cent. The Age Mortality is:

Under 1 year	10
1 and under 2 years	1
2 „ 5 „ 	2
5 „ 15 „ 	1
15 „ 25 „ 	0
25 „ 45 „ 	3
45 „ 65 „ 	5
65 and over	19—11

The Ward mortality is:

North	10
South	10
East	1
West	6
Grange	3
Central	11—11

HEART DISEASE.

In its various forms Heart Disease accounted for 30 deaths the age mortality being:—

5 and under 15 years	1
15 „ 25 	1
25 .. 45 	4
45 .. 65 	10
65 and over	14—30

The Ward mortality is: —

North	6
South	7
East	1
West	5
Grange	6
Central	5—30

CANCER.

All forms of malignant disease are included under this heading and caused 35 deaths, compared with 33 last year. The ages were:—

15 and under 25 years	1
45 „ 65 	5
45 .. 65 	18
65 and over	11—35

The Ward mortality is:—

North	3
South	8
East	5
West	8
Grange	5
Central	6—35

PREMATURE BIRTH AND CONGENITAL DEBILITY, &c.

In the different groups included under the above heading Premature Birth totalled 26, Atrophy, Debility and Marasmus 24,

and Congenital Malformations 2, a total of 52 deaths, compared with 54 last year.

The Ward mortality was:

North	12
South	5
East	7
West	12
Grange	6
Central	10 52

VIOLENT DEATHS.

These include all deaths from violence, such as accidents, burning, scalds, overlaying, drowning, etc., but exclude deaths from Suicide. The number registered was 30, and occurred in the following wards:

North	3
South	5
East	3
West	10
Grange	3
Central	6 30

There were 3 deaths from Suicide, one each in North, West and Grange Wards.

TUBERCULOSIS.

Deaths from Tuberculosis.—In its various forms Tuberculosis stands an easy first as a cause of death, ranking even well above Pneumonia. In all 88 deaths were due to this cause, compared with 68 in 1913. They were sub-divided as follows:

Pulmonary Tuberculosis	63
Tubercular Meningitis	6
Other Tubercular Diseases	19

This corresponds to a death-rate of 2.2 per 1000 of the population.

Death-rate from Pulmonary Tuberculosis	1.7
„ Other Tubercular Diseases	0.5
Total	2.2

as compared with 1.9 last year and 1.34 for the County of Durham.

Phthisis.—This form of Tuberculosis caused 63 deaths. The ages, Wards and months are shown in the following table:—

Phthisis Deaths, showing Ages, Wards and Months.

Month.	under 1 yr	1-2.	2-5.	5-15.	15-25.	25-45.	45-65.	65 & over.	Total.	North.	South.	East.	West.	Grange.	Central.
January	1	1	1	1	1	5	1	...	1	1	...	2
February	...	1	...	...	1	...	2	1	5	...	1	1	1	...	2
March	3	3	1	4	11	4	...	2	1	...	4
April	1	...	1	1	1	1	5	...	...	2	1	1	1
May...	1	1	2	1	5	1	1	2	...	...	1
June...	1	...	...	...	1	1	...	...	...	...	...
July	1	1	2	2	...	6	1	1	...	...	2	2
August	1	1	1	3	...	6	...	1	3	...	2	...
September	1	1	...	2	...	...	1	...	1	...
October	1	1	...	1	3	...	...	1	2	...	...
November	1	1	4	1	7	1	4	...	...	...	2
December	1	1	...	1	3	1	7	3	...	1	1	...	2
Total	...	1	2	4	12	13	20	11	63	12	8	14	7	6	16

Other Forms of Tuberculosis.—Number 25. The ages were as follows:

Under 1 year	3
1 and under 2 years	6
2 „ 5 „	2
5 „ 15 „	8
15 „ 25 „	2
25 „ 45 „	1
45 „ 65 „	2
65 and over	1—25

The Ward mortality is:—

North	4
South	6
East	4
West	2
Grange	4
Central	5—25

NOTIFICATION OF TUBERCULOSIS.

190 cases of Tuberculosis were notified during the year:—
 143 Phthisis and 47 other Tubercular Diseases—compared with
 292 last year. As was to be expected this year's total shows an
 appreciable diminution, as the number notified during 1913 included
 many cases of several years standing. Some time will therefore
 have to elapse before the yearly number is a fair indication of
 the incidence of this disease. The following table shows the
 ages, Wards and months of the cases notified as suffering from
 Pulmonary Tuberculosis.

Pulmonary Tuberculosis, showing Ages, Wards and Months.

Month	Age								Direction						
	under	1-5.	5-15.	15-25.	25-45	45-65.	65 & over	Total	North.	South	East	West.	Grange	Central	
January	1	4	7	3	3	...	18	1	2	8	1	4	2
February	1	4	3	7	1	...	16	2	4	1	3	...	6
March	...	1	...	5	3	5	7	...	21	3	4	2	4	4	4
April	2	1	...	3	...	6	...	...	1	1	2	2
May...	2	2	3	1	...	8	2	3	2	...	...	1
June...	1	3	3	...	...	7	...	3	1	...	...	3
July...	7	3	5	...	15	3	...	6	2	2	2
August	1	1	5	4	4	...	15	3	3	2	1	1	5
September	1	4	2	3	1	...	11	2	3	2	...	1	3
October	...	1	...	2	5	1	2	...	11	1	2	...	2	2	4
November	1	1	1	...	...	3	1	...	1	...	1	...
December	1	2	3	4	2	...	12	4	2	...	1	1	4
Total	...	2	5	28	42	37	29	...	143	22	26	26	15	18	36

Other Tubercular Diseases.—The ages were:—

Under 1 year	.....	2
1 and under 5 years	.....	12
5 „ 15	.....	22
15 „ 25	.....	4
25 „ 45	.....	5
45 „ 65	.....	2—47

The Wards were as follows:—

North	.....	9
South	.....	8
East	.....	6
West	.....	11
Grange	.....	2
Central	.....	11—47

JARROW DISPENSARY FOR TUBERCULOSIS.

As regards the work done at the above Dispensary, Dr. A. M. Masters, Assist. T.M.O., has kindly sent me the following report:—

The work in connection with the Tuberculosis Dispensary at 221, Albert Road, Jarrow, has been steadily increasing during the past year, and it has been found necessary to open it for the attendance of patients on two days a week, women and children attending on Mondays from 2 to 5 p.m. and men on Wednesdays at the same time.

The Medical Officer is in attendance at the above hours to examine persons suffering from, or suspected to be suffering from, Consumption or other form of Tuberculosis, and to advise as to the best method of treatment either in the patient's own home or in an institution.

Advice is also given concerning the mode of life to be followed by tubercular patients, and the special precautions to be taken with a view to preventing the spread of the disease to other persons with whom the patient comes in contact.

The cordial support and co-operation of the Medical Officer of Health have been of great value in carrying out the scheme for the prevention and cure of Tuberculosis.

The general practitioners in the Borough have assisted greatly in the work by sending cases to the Dispensary for early diagnosis and so bringing the Tuberculosis Officer in touch with suspects, contacts, etc.

At the Dispensary every endeavour is made to assist general practitioners in cases of doubtful diagnosis, and the Medical Officer is always pleased to meet medical men in consultation.

After-care. Patients discharged from Institutions are expected to visit the Dispensary at least once a month to be examined in order to prevent relapses as far as possible.

It has been arranged for the Health Visitor to call upon each patient as soon as possible after the date of discharge, and subsequently at least once a month.

The Health Visitor reports on the home conditions, sees that the open-air treatment is carried out, and advises regarding prevention of infection.

Tuberculosis is very prevalent in Jarrow, but the scheme now in force, and the co-operation of the Local Sanitary Authorities, the Tuberculosis Officer and the general practitioners will no doubt largely reduce the incidence of the disease.

The following figures relative to cases belonging to the Borough and dealt with at the Tuberculosis Dispensary, are given me by Mr. Dixon Barker, Divisional Clerk.

APPLICANTS:—

Insured Persons	59
Non-Insured Persons	58
	<hr/>
	117

AGES:—

Under 16 years	49
16 and under 21 years	16
21 „ 30 „	21
30 „ 40 „	15
40 „ 50 „	12
Over 50 years	4
	<hr/>
	117

ADMITTED TO SANATORIA:—

Insured Persons	24
Non-Insured Persons	23
	<hr/>
	47

DISCHARGED FROM SANATORIA:—

Insured Persons	16
Non-Insured Persons	12
	<hr/>
	28

Patients were receiving the following treatments at 31st December, 1914.

Sanatorium	19
Dispensary	19
Domiciliary	6
Spinal Jacket	2
	46

WARD MORTALITY.

In the following table the Mortality Rates in the various Wards are shown and contrasted. Residents dying outside the Borough are included in the Ward in which they resided previous to leaving the district.

Births, and Deaths from various causes, with respective Rates, according to Wards (Jarrow), 1914.

Ward	Estimated Population	Total Births.	Birth rate	Total Deaths	Death-rate.	Zymotic Deaths	Zymotic Death-rate	Phthisis Deaths	Phthisis Death-rate	Respiratory Diseases Deaths excluding Phthisis	Respiratory Diseases Death-rate.	Deaths in Infants under one year.	Infantile mortality rate.
North	5000	187	37·4	103	20·6	11	2·2	12	2·4	18	3·6	26	139
South	8250	265	32·1	109	13·2	13	1·5	8	0·9	21	2·5	17	64
East ...	5200	200	38·4	86	15·7	12	2·3	14	2·6	20	3·8	23	115
West ...	6250	205	32·8	114	18·2	11	1·7	7	1·1	23	3·8	24	117
Grange	6300	143	22·7	80	13·6	5	0·79	6	0·9	7	1·1	14	97
Central	5500	181	32·9	123	22·3	13	2·3	16	2·9	23	4·1	25	138
Borough	36500	1191	32·6	615	16·8	65	1·7	63	1·7	112	3·0	120	108

The above table gives a fairly accurate idea of the health conditions of the different Wards. Taking the death-rate for example, it is highest in the North and Central Wards with 20.6 and 22.3 per 1000. The Zymotic death-rate is also highest in the North and Central Wards with 2.2 and 2.3 respectively. The same remarks apply with reference to Acute Respiratory Diseases, Phthisis and Infantile Mortality. Thus, in every instance the mortality returns are highest where overcrowding, filth and destitution are most abundant, where the most insanitary conditions exist, and where the social conditions are farthest from the public health ideal. All these factors lead inevitably to the one result: the increased demand on life and survival only of the fittest in the struggle for existence.

HOSPITAL.

This year has surpassed all others in the amount of work done at the Hospital. The epidemic of Scarlet Fever continuing well on to the end of the year, never allowed of any real diminution in the number of cases under treatment. We continued to use Jarrow Hall as a Convalescent Scarlet Home up to November by increasing the number of beds to 35; and when the first decrease in the admissions to the Hospital began to show itself, we used the Hall for acute cases as well, so that finally in December all cases of Scarlet Fever were removed to that institution. The Primrose Hospital was then used exclusively for Typhoid Fever, which had broken out in the last three months of the year, excepting a few beds in the old Small-pox building, which were retained for Diphtheria patients. In addition to the above two Hospitals arrangements were made with the Tyne Port Authorities for having Enteric Fever cases removed to the Floating Hospital until such time as accommodation could be made for them at Primrose Hill.

Hospital Returns, 1914.

		Remaining Dec. 31st, 1913.	Admitted during 1914.	Total under treatment during 1914.	Discharged during 1914.	Deaths in 1914.	Remaining Dec. 31st, 1914.
Scarlet Fever	...	82	425	507	470	7	24
Enteric Fever	...	...	23	23	7	3	13
Diphtheria	...	...	11	11	8	2	1
Total	...	82	459	541	491	12	38

NOTE. Included in this table are admissions from staff :
 1 Scarlet, 1 Typhoid, 1 Diphtheria; and also 1 Scarlet
 admitted from South Shields Rural District. In addition
 to the above figures 8 cases of Enteric Fever were removed
 to the Floating Hospital.

The following table shows the percentage of cases of the
 three main infectious diseases removed to Hospital during the
 year.

Percentage Removed to Hospital.

	No. Notified	Removed to Hospital	Percentage.
Scarlet Fever	...	474	89.2%
Enteric Fever	...	30	93.7%
Diphtheria	...	10	15.8%
Total	...	560	81.3%

The next table shows the number of cases notified from each Ward with the number removed to the Hospital.

Table showing Number of Notifications, etc., from the Various Wards.

			North.	South.	East	West.	Grange.	Central.
Scarlet Fever	Notifications	...	42	152	40	95	85	60
	Removed to Hospital	...	38	136	40	86	67	56
Enteric Fever	Notifications	...	3	5	1	11	2	10
	Hospital	...	3	5	1	11	1	9
Diphtheria	Notifications	...	5	19	6	9	9	15
	Hospital	...	1	2	...	5	1	1

An examination of these tables reveals one very satisfactory feature, viz.: the large percentage of cases which were treated away from home. The number of admissions for the previous ten years is shown below and makes an interesting comparison.

Cases admitted to Hospital during last ten years.

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Scarlet Fever ...	45	23	41	26	15	50	58	48	199	423
Diphtheria ...	...	...	...	...	...	1	5	19	13	10
Enteric ...	28	11	5	7	13	1	5	8	7	30
Small-pox ...	13	...	...	...	...	...	...	...	...	...
Total ...	86	34	46	33	28	52	68	75	219	463

Thus it will be observed that the figures this year easily exceed any year during the decade. But although, as far as statistics go, the work done appears highly satisfactory: it has shown more obviously than ever the present state of the Hospital. Leaving out the old Small-pox Ward, which is now unfit for use, there are only 15 beds available, or 8 for Scarlet and 7 for Typhoid. No proper provision for Diphtheria exists, and only 10 cases of this important disease were admitted during the year. In this connection of Hospital accommodation I may draw attention to the following extract from the Local Government Board circular on Hospital Accommodation.

"The provision of hospital accommodation for cases of infectious diseases is to be regarded primarily as a measure of sanitary defence, for the protection of the public against the spread of these diseases. It is true that such accommodation incidentally serves other useful purposes. Thus, it is frequently of value for the relief of individuals suffering from infectious disease, whose sufferings may be alleviated, and their recovery promoted by affording them better accommodation and attendance than they are able to obtain at their own homes. Or it may be the means of avoiding serious inconvenience and pecuniary loss, as when infectious disease breaks out in a school, a lodging-house, or a place of business. But, nevertheless, the most important function which such a hospital serves is that of the isolation of the first cases of infectious disease with a view to preventing its further spread in the household or locality invaded.

In order that a hospital may fulfil this function it is essential that it should be in readiness beforehand. Experience has shown that on the invasion of an epidemic, a hospital, even of a temporary kind, can seldom be provided and got ready for use until the time when it would have been of most service is past. The accommodation, moreover, which is required when an epidemic has become established is on a larger scale than would have sufficed for the isolation of

the first cases; and hospitals hurriedly erected during the stress of an epidemic are never satisfactory in construction or suited to the permanent needs of the district.

The amount of permanent isolation hospital accommodation which should be provided in proportion to the population will depend upon various considerations, among the most important of which are the character of the district, whether urban or rural; the rate of increase of population the housing and habits of the people; and the amount of intercourse with other places from which infectious disease may be introduced. As a rough estimate, one bed for every thousand inhabitants is sometimes adopted, but in view of the diverse circumstances of different districts this cannot be regarded as a definite standard. Moreover, the sufficiency of the hospital accommodation will depend not merely upon the aggregate number of beds, but also upon the way in which they are arranged in wards. In a single block with wards connected together only one disease can safely be treated at a time; and thus at a hospital containing only one such block, occasions may arise when, owing to the hospital being partly occupied by one disease, a case of a second disease requiring isolation cannot safely be taken in, although there may be a number of beds empty at the time.

It is common to find that the demand for hospital accommodation, when people have come to appreciate the benefits of its use, increases far beyond what was at first anticipated; and for this reason, as well as to allow for growth of the population and for the possible need for temporary extensions during epidemics, it is well at the outset to provide for the contingency of future enlargement."

Following on the advice given in these extracts one is led to only one conclusion, that extensive alterations are required at Primrose Hill Hospital if this valuable work is to be continued under the best conditions. The standard of one bed per 1000 of the population would equal 36 beds. This figure I consider

too low, as in a working-class town such as ours, with no residential suburbs, densely populated usually on the flat system, proper isolation such as is required for modern methods is absolutely impossible, except in a very small percentage of cases, and the only course advisable is their immediate removal from home. For the treatment of three diseases, three separate and distinct pavilions are required, with a total number of available beds between 40 and 50. This would be equal to about one bed per 800 of the inhabitants and would go a very long way to simplify the difficulties at present met with in coping with serious outbreaks of infectious disease.

Certain changes have to be recorded in the staff of the Hospital during the year. The Matron and Porter resigned their positions in November and the Committee decided on making the positions separate and distinct from each other. For the position of Matron they were fortunate in securing the services of Miss M. E. Hall, who had been in charge of Jarrow Convalescent Home since its opening in November of last year. Accommodation is also to be provided for a porter, but in the meantime he will be required to reside off the premises. The Committee also decided to appoint two trained nurses to be permanently on the nursing staff. As a result of these changes the efficiency of the hospital will be greatly increased and the work much more easily carried on than in the past.

Table showing Number of Cases Removed to Hospital from the Various Wards during the year.

Month.	North Ward.			South Ward.			East Ward.			West Ward.			Grange Ward.			Central Ward.			Total.			Total.
	Scarlet.	Diphtheria.	Enteric.	S	D	E	S	D	E	S	D	E	S	D	E	S	D	E	Scarlet.	Diphtheria.	Enteric.	
January	3	...	...	25	...	...	7	...	...	13	...	...	5	...	...	3	...	...	56	...	...	56
February	3	...	...	8	...	...	10	...	...	8	...	...	7	...	...	4	...	3	40	...	3	43
March	5	...	...	17	...	...	...	...	...	8	...	...	5	...	...	5	...	...	40	...	...	40
April	2	...	...	8	...	...	1	...	...	14	...	1	5	...	...	5	...	...	35	...	1	36
May	5	...	1	20	...	...	5	...	...	8	...	...	15	...	...	6	...	...	59	...	1	60
June	2	...	...	5	...	...	...	...	...	5	...	...	6	...	...	8	...	...	26	...	...	26
July	5	...	1	11	...	...	4	...	...	2	...	...	6	...	...	5	...	...	33	...	1	34
August	5	...	...	5	...	...	2	...	...	4	...	...	8	...	...	13	...	...	37	...	...	37
September	2	...	...	9	...	...	5	...	...	10	3	1	5	1	...	4	...	...	35	4	1	40
October	4	1	...	19	...	1	2	...	...	2	2	3	2	...	...	1	...	2	30	3	6	39
November	2	...	1	3	2	1	4	...	1	4	...	3	2	...	1	...	...	...	15	2	7	24
December	...	...	...	6	...	3	...	...	...	8	...	3	1	...	...	2	1	4	17	1	10	28
Total	38	1	3	136	2	5	40	...	1	86	5	11	67	1	1	56	1	9	423	10	30	463

NOTE.—8 cases Enteric Fever were removed to Floating Hospital.

APPENDIX

TO VITAL STATISTICS.

LOCAL GOVERNMENT BOARD TABLES I.—IV.

- I. Vital Statistics of whole district during 1914 and previous years.
- II. Cases of Infectious Disease notified during 1914.
- III. Causes of, and ages at, Death during 1914.
- IV. Infantile Mortality during year 1914. Deaths from stated causes in weeks and months under one year of age.

**TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1914
AND PREVIOUS YEARS.**

Year.	Population estimated to Middle of each year.	Births.			Total Deaths registered in the District.		Transferable †Deaths.		Net deaths belonging to the District.			
		Uncorrected Number.	Nett.		*Number.	Rate.	of Non-residents registered in the District. †	of Residents not registered in the District. †	Under 1 year of age.		At all ages.	
			†Number.	Rate.					*Number	Rate per 1,000 Nett Births.	*Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1909	34815	1024	...	29.4	516	14.8	5	67	152	148	578	16.6
1910	34815	971	...	27.8	501	14.3	6	51	123	126	546	15.6
1911	33732	1039	1052	31.1	489	14.4	4	79	133	126	564	16.7
1912	34400	1100	1103	32.0	490	14.2	6	91	128	116	575	16.7
1913	35300	1064	1074	30.4	492	13.9	1	96	134	124	587	16.6
1914	36500	1181	1191	32.6	537	14.7	7	85	129	108	615	16.8

Area of District in acres,
(exclusive of area 906
covered by water).)

Total population at all ages, 33,732	...	} At Census of 1911.
Number of inhabited houses, 6,911	...	
Average number of persons per house, 4.8	...	

NOTES TO TABLE I.

This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrections as to transferable deaths probably will not be available. The rates should be calculated per 1000 of the estimated gross population at stated in Col. 2, without the use of the standardising factor for the district given in the Annual Report of the Registrar-General. In a district in which large Public Institutions for the sick or infirm seriously affect statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

* In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

† The Medical Officer of Health will be able from the returns made to him by the local Registrar of Deaths, as well as from the quarterly lists furnished by the Registrar General, to fill in Column 8 in accordance with the rule in the next paragraph below. The Registrar General, either directly or through the County Medical Officer of Health, will supply the Medical Officer of Health with the particulars of deaths to be entered in Column 9; and all such deaths must be included in this Column, unless an error is detected, and its correction has been accepted by the Registrar General. For Column 4 the Registrar General will furnish to the Medical Officer of Health a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar.

‡ "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, must not be included in Columns 8 or 9, except in certain instances under 3 (*b*) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of "non residents" which are to be deducted, and will state in Column 9 the number of deaths of "residents" registered outside the district which are to be added in calculating the nett death-rate of his district.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (*a*) to the district of residence, under the general rule; (*b*) if this district is unknown, or the deceased has no fixed abode, to the district where the accident occurred, if known; (*c*) failing this to the district where death occurred, if known; and (*d*) failing this, to the district where the body was found.

TABLE II.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1914.

Notifiable Disease.	At all Ages.	Cases Notified in Whole District.							Total cases notified in each locality.						Total cases removed to Hospital.		
		At Ages†—Years.							North Ward	South Ward	East Ward	West Ward	Grange Ward	Central Ward			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards									
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
†Cholera (c) Plague (p)	nil.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup	63	2	24	26	8	3	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	37	1	1	5	2	9	17	2	...	...	...	...	...	...	...	...	...
Scarlet fever	474	3	102	328	31	6	4	...	42	40	95	85	60	423	...	...	...
Typhus fever	nil.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	32	...	...	12	4	13	3	...	...	...	...	...	...	...	...	...	...
†Relapsing fever (R) Continued (c)	nil.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	nil.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis	nil.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poliomyelitis	5	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	12	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	143	2	5	28	42	37	29	...	22	26	26	18	36	...	...	...	...
Other forms of Tuberculosis	47	2	12	22	4	5	2	...	8	6	11	2	11	...	...	...	...
§Chicken-Pox	16	1	4	11	...	...	...	...	9	1	10	...	...	...	...	...	...
Totals ...	829	24	152	432	91	73	55	2	91	224	86	162	125	141	463	...	...

NOTES TO TABLE II.

State in space below the name and position within or without the district of the isolation Hospital or hospitals, sanatoria or other institutions to which the residents of the district, suffering from infectious disease have usually been sent, and the name of the authority by whom the hospital is provided.

§ This space may be used for record of other diseases the notification (compulsory or voluntary) of which is in force in the district.

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

‡ Specify the disease by initial against the figure.

* The figures should take account of any corrections made as a result of error in notification or revision of diagnosis as a result of the further course of the disease (cf. para (3) on p. 3 of the weekly summary of cases of Infectious Disease).

Isolation Hospital or Hospitals, Sanatoria, &c.—Isolation Hospital: Primrose Hill, a short distance outside the Borough provided by the Town Council.

TABLE III.—CAUSES OF, AND AGES AT, DEATH DURING
THE YEAR 1914.

Causes of Death.	Nett Deaths at the subjoined ages of Residents whether occurring within or without the district (a).										Total deaths whether of Residents or non-residents in institutions in the district (b).
	All ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.		
1	2	3	4	5	6	7	8	9	10	11	
All Causes (Certified (c) Uncertified)	589 26	123 6	47 ..	33 2	44 1	30 ..	88 4	112 5	112 8	15	
1 Enteric fever ..	6	..	..	..	1	1	4	..	..	3
2 Small-pox ..	..	..	..	..	..	..	..	..	..	..
3 Measles ..	1	..	..	1	..	..	..	..	..	..
4 Scarlet fever ..	7	..	..	2	5	..	..	..	..	7
5 Whooping-Cough ..	8	4	1	2	1	..	..	..	..	..
6 Diphtheria and Croup ..	12	2	5	2	3	..	..	..	..	2
7 Influenza ..	6	..	..	..	1	..	4	1	..	..
8 Erysipelas ..	3	..	..	..	..	..	..	2	1	..
9 Phthisis (Pulmonary Tuberculosis) ..	63	1	2	4	12	13	20	11	..	..
10 Tuberculous Meningitis ..	6	1	2	1	1	1	..	..	..	..
11 Other tuberculous diseases ..	19	2	4	1	7	1	1	2	1	..	
12 Cancer, malignant disease ..	35	..	..	..	..	1	5	18	11	..
13 Rheumatic Fever ..	2	..	..	..	..	..	2	..	..	..
14 Meningitis. See note (d) ..	9	4	..	4	..	1	..	..	..	..
15 Organic Heart disease ..	30	..	..	..	1	1	4	10	14	..
16 Bronchitis ..	44	10	4	2	1	..	3	5	19	..	
17 Pneumonia (all forms) ..	67	19	10	6	4	3	13	9	3	..	
18 Other diseases of respiratory organs ..	1	..	..	..	..	..	..	1	..	..
19 Diarrhœa & Enteritis. See note (e) ..	36	23	8	3	..	..	..	1	1	..
20 Appendicitis and Typhlitis ..	1	..	..	..	1	..	..	..	..	..
21 Cirrhosis of Liver ..	3	..	..	..	..	..	2	1	..	..
21a Alcoholism ..	4	..	..	..	..	..	2	1	1	..
22 Nephritis and Bright's Disease ..	15	1	2	..	..	2	2	4	4	..
23 Puerperal fever ..	1	..	..	..	..	..	1	..	..	..
24 Other accidents and Diseases of pregnancy and parturition ..	3	..	..	..	..	..	3	..	..	..
25 Congenital debility & malformation including Premature birth ..	52	52	..	..	..	..	..	..	..	..
26 Violent deaths, excluding Suicide ..	30	..	2	2	1	5	6	8	6	3	
27 Suicides ..	3	..	..	..	..	..	2	1	..	..
28 Other defined diseases ..	99	3	4	3	5	1	14	37	32	..	
29 Diseases ill-defined or unknown ..	23	1	3	..	..	..	..	..	19	..
Totals ..	615	129	47	35	45	30	92	117	120	15	

NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the short test on page 25 of the Manual of the International List of Causes of Death.

- (a). All transferable deaths of residents, i.e. of persons resident in the district who have died outside it are to be included with the other deaths in columns 2—10. Transferable deaths of non-residents, i.e. of persons resident elsewhere in England and Wales who have died in the district are in like manner to be excluded from these columns. For precise meaning of term “transferable deaths” see foot-note Table I. The total deaths in column ii. of Table III. should equal the figures for the year in column xii. of Table I.
- (b). All deaths occurring in institutions for the sick and the infirm situated within the district, whether of resident or non-resident, are to be entered in the last column of Table III.
- (c). All deaths certified by Registered Medical Practitioners and all inquest cases are to be classed as “Certified”; all other deaths regarded as “Uncertified.”
- (d). Exclusive of “Tubercular Meningitis” (10) but inclusive of Cerebro-Spinal Meningitis.
- (e). Title 19 should be used for deaths from Diarrhœa and Enteritis at all ages.—In the “Short List” deaths from Diarrhœa and Enteritis under two years are included in Title 19; those of two years and over being placed under Title 28.

TABLE IV.—INFANTILE MORTALITY.

1914. Nett Deaths from stated Causes at various Ages under 1 Year of Age.

Cause of Death.		Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes.	{ Certified ...	31	3	5	4	43	15	28	22	15	123
	{ Uncertified ...	...	...	...	1	1	1	3	1	...	6
Smallpox	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	1	1	2	...	4
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	2	2
Erysipelas	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis (b)	...	...	...	...	...	...	...	2	...	...	2
Other Tuberculous Diseases	...	...	...	...	...	...	...	1	...	...	1
Meningitis not Tuberculous	...	...	...	...	...	...	...	1	3	...	4
Convulsions (uncertified)	...	...	...	...	1	1	1	2	...	...	4
Laryngitis	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	5	5	...	...	10
Pneumonia (all forms)	...	...	1	...	...	1	...	4	6	8	19
Diarrhœa	...	...	...	...	...	...	1	2	2	1	6
Enteritis	...	1	...	...	1	2	2	6	5	2	17
Gastritis	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	1	1	...	2
Rickets	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations (c)	...	2	...	...	...	2	...	...	...	...	2
Premature Birth	...	22	1	2	1	26	...	...	...	...	26
Atrophy, Debility and Marasmus	...	5	1	3	2	11	6	5	...	2	24
Other causes	...	...	...	...	...	...	...	...	2	...	2
Capillary Bronchitis (uncert)	...	...	...	...	...	...	...	1	1	...	2
Totals	...	31	3	5	5	44	16	31	23	15	129

Births in the year { legitimate 1168
 { illegitimate 23

Deaths in the year of { legitimate and illegitimate infants ... 129
 { illegitimate infants Not shown

NOTES TO TABLE IV.

- (a). Total in last column of Table IV. should equal the total of column 10 in Table I. and in column 3 of Table III.
- (b). Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from *Tabes Mesenterica*.
- (c). The total deaths from Congenital Malformations, Premature Births, Atrophy, Debility, and Marasmus, should equal in Table III. for ages under one year under the heading Congenital Debility and Malformation, including Premature Birth.

SANITARY CIRCUMSTANCES OF THE BOROUGH.

Water Supply.—This is supplied by the South Shields and Sunderland Water Company, and is obtainable from wells sunk in magnesian limestone. Owing to its hardness it has no plumbosolvent action, though for potable purposes this is rather a disadvantage. It is a wholesome and pleasant drinking water and is free from all suspicion of pollution. The supply is ample and the service a continuous one.

Drainage and Sewerage.—The sewers and drains are quite adequate for the requirements of the Borough. There are four sewer-falls into the River Tyne and three into the Don, the sewerage being sent direct into these rivers. There are very few water-closets in the town.

Closet Accommodation.—The dry earth-closet system is the one adopted in the Borough. There are no privy-ashpits. In some of the houses in the Grange Ward and also in the South Ward—along with a few scattered throughout the other Wards—water-closets are in use.

No. of Ash-Closets in Borough	4958
No. of Water-Closets in Borough	740
No. of New Water-Closets	54
No. of Ash-Closets converted into Water-Closets during 1914	12

Another year has passed and still no attempt has been made to remedy this incredible state of affairs. It cannot be expected that the best results will be obtained by the Sanitary Department as long as only 13 per cent. of the houses possess the water-carriage system.

Scavenging.—This work has been done satisfactorily during the year. The earth closets are emptied once a week and the contents are disposed of at sea.

Sanitary Inspections of District.—This has been carried out in a very systematic manner. The amount and variety of the work can be seen in the Sanitary Inspector's Report which is attached.

FOODS AND DRUGS ACT.

Forty samples were taken during the year with the following results:—

			Result of Analysis.		
			Adulterated or		
			Genuine. below standard.		
			No. taken.		
Milk	.....	25	.....	18	..... 7
Butter	.....	10	.....	10	..... ..
Coffee	.....	5	.....	5	..... ..
			—	—	—
			40	33	7

Thus it will be seen that 33 samples out of the 40 were up to the required standard, viz.: 18 of milk, 10 butter and 5 coffee. The seven samples below the standard gave results equivalent to the following percentages of adulteration:—

No. of Sample.	Nature of Sample		Result of Analysis.		Calculated Percentage of additional water.
			Fats	Non-Fatty Solids.	
1	New Milk	...	3.55 %	8.03 %	5.53 %
2	"	...	4.95 %	8.33 %	2.0 %
6	"	...	4.05 %	8.38 %	1.4 %
27	"	...	3.55 %	8.31 %	2.3 %
28	"	...	3.65 %	8.33 %	2.0 %
33	"	...	4.30 %	8.37 %	1.6 %
35	"	...	4.30 %	8.18 %	3.8 %

No action was taken against any of these vendors except being censured by letter from the Town Council.

DAIRIES,, MILKSHOPS AND COWSHEDS.

There are within the Borough 70 registered milkshops, 4 dairies, and 2 cowsheds. Although premises are registered as milkshops only when they conform to certain regulations they are nevertheless open to serious objection in several instances. As well as milk, all sorts of goods are sold in these shops, e.g. different kinds of vegetables, so that the milk is always liable to contamination with dust, etc., which is much more likely to endanger the health of the consumers than any adulteration which is indicated by the analyst's report.

COMMON LODGING HOUSES.

There are 9 Common Lodging Houses registered in the Borough, capable of accommodating 450 lodgers. 7 are registered for males only and are carried out in a very satisfactory manner. Two are licensed for persons of both sexes. This system is in my opinion most objectionable and should be abolished as soon as possible. in the future. The conditions in the best of these lodging houses are much superior to many houses in the Borough and are largely made use of by working-men, as is shown by the fact that at present very few beds are empty.

The following list gives the addresses and accommodation available in the nine different lodging houses:—

38 and 40 Staple Road	46 men.
60 and 62 Princess Street	29 men.
28-36 Stanley Street	120 men.
35 Stanley Street	22 men.
29-33 Stanley Street	67 men.
25-27 Stanley Street	43 men.
6 Dunn Street	31 men.

39 and 41 Albion Street	38 men.
	6 single women.
	6 couples.
	2 children.
57 Albion Street	17 men.
	6 couples.
	5 single women.

SLAUGHTER HOUSES.

Licenses. There are 27 registered slaughter-houses in the town; 3 out of the 27 are in front shops and 24 in back slaughter houses. Two new licenses have been granted for premises situated away from the place of business altogether. This is, in itself a great improvement, as the slaughtering of animals in the front shop, which is in ordinary conditions used for the sale of meat, is far from what can be called satisfactory and up-to-date.

MEAT DESTROYED AS UNFIT FOR FOOD.

During the year three carcasses of beef were condemned by me as unfit for human consumption. In each case the reason was extensive tuberculosis. The carcasses were surrendered and the whole destroyed by burning. 28 lbs. of cheese and 6 cases of tomatoes were also condemned.

OFFENSIVE TRADES.

Only one offensive trade is carried on in the district, that of a tripe-boiler. The premises are situated on the Pit Heap and are quite unsuitable for the work carried on; the whole place being in a most unsatisfactory state, with no convenience of any modern description. Steps are already being instituted to have this serious nuisance rectified and will, I hope, end in the business being carried out on proper lines.

PORK BUTCHERS' SHOPS.

Many visits were paid by the Chief Sanitary Inspector and myself to small pork butchers' shops, which were carried out in a very filthy and dangerous fashion. One case in particular being so bad as to constitute a grave public menace. Notices were served by the Inspector and also by order of the Authority, but all resulted in very little improvement, and finally proceedings were instituted. The case was, however, dismissed by the magistrates, who were nevertheless satisfied that the premises were not kept as clean as they might be. In view of the difficulties met with in carrying out the orders of the Council, and especially in view of the difficulty of proving such cases in Courts of Law, it is imperative that in the future regulations are framed governing these business and making it impossible for pork butchering to be carried out under such foul and disgusting conditions as exist at present.

CONTROL OVER ACUTE INFECTIOUS DISEASES.

All cases notified are at once visited and notes taken as regards the illness, contacts, conditions of house, accommodation, sanitary surroundings, milk supply, etc. Where accommodation is at all unsuitable or limited, removal to hospital is advised. That this has been taken full advantage of is shown by the very large proportion of cases admitted to hospital. If the case is left at home, written instructions are left pointing out the precautions to be taken. The case is besides occasionally visited by the Sanitary Authority to see that these are being carried out and at the end of the illness the rooms are disinfected with formalin and the bedding, etc., sent for disinfection to the hospital disinfectors. Disinfectants are supplied free of charge.

Bacteriological Work.—In the diagnosis of Diphtheria, Phthisis and Enteric Fever, advantage was largely taken of the arrangement made by the Durham County Council by which swabs, sputa, and blood, can be examined at the College of Medicine, Newcastle, without any charge being made to the patient.

During the year 129 specimens were sent as follows:—

	Positive.	Negative.	Total.
Diphtheria	18	48	66
Phthisis	7	31	38
Enteric Fever (Widal Reaction)	15	10	25
	—	—	
	40	89	129

HOUSING.

The different Housing schemes were again under discussion by the Council but in view of the present crisis they were all in meantime postponed. That there is a scarcity of housing accommodation is proved by the constant demand for houses, consequent on the increased amount of work in the town, and also as the result of a census of the Borough taken in November, when out of 7224 houses only 37 houses of 2, 3 and 4 room sizes were unoccupied. So that allowing for the large number away in the various Government services, practically every available house is inhabited.

During the year 23 houses were built in the Borough, consisting of two divided into flats, making four tenements, and 21 self-contained houses: 14 of these self-contained were in the Grange Ward, with 7 and 2 tenements in the South Ward.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

1. The number of dwelling houses inspected under and for the purpose of section 17 of the Act ... 934
2. The number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation 1
3. The number of representations made to the Local Authority with a view to the making of Closing Orders 1
4. The number of Closing Orders made ... 1

5. The number of dwelling houses, which, after the making of Closing Orders, were put into a fit state for human habitation 1

As a result of the year's work, the inspection of the North Ward has been completed. Certain houses in Tyne Street are rapidly approaching a state when they will be unfit for habitation. The other main defects found to exist were:—insufficient light and ventilation, leaking roofs and defective floors, damp walls, dangerous chimneys and stairs, and decayed state of brickwork in the main building. 75 per cent. of the defective houses were remedied by the owners, which must be considered very satisfactory, especially as many of the notices will be complied with early in the present year.

PUBLIC ELEMENTARY SCHOOLS.

The sanitary conditions and water supply of all the schools are satisfactory. No closing orders were necessary, except during the first two weeks of January, when they were closed on account of the Scarlet Fever epidemic. All the Schools were disinfected from time to time by fumigation, spraying and washing with disinfectants. The Croft Terrace School, as indicated elsewhere, was given over to the Military Authorities and the children were transferred to Dunn Street Schools, arrangements being made so that the children of both schools were taught during alternate hours.

SANITARY ADMINISTRATION OF DISTRICT.

This year has again been one of great activity in the Sanitary Department. The greater part of the increase of work was due to the continuation of the Scarlet Fever epidemic well on to the end of the year. Alteration was made in the post of Lady Health Visitor and School Nurse by making these separate appointments. Miss Comyn was appointed in September but resigned after three months. The work of the Health Visitor consisted

chiefly in the visitation under the Notification of Births Act, primary visitation of Tuberculosis cases, and also in certain cases visits were paid to filthy houses.

Ophthalmia Neonatorum became compulsory notifiable at the beginning of the year and Chicken Pox was also added to the list in November.

Summary of Work done by the Lady Health Visitor.

1. Notification of Births Act:

Visits.	Re-visits.	Breast fed.	Artificially Fed.	Died.
1026	... 129	... 954	... 34	... 38

2. Tuberculosis—58 cases.

3. Dirty houses—58.

Dirty Houses.—112 notices were served on tenants for keeping their houses in a dirty and foul condition. In most instances at least temporary improvement was shown, but in a few cases absolutely nothing was done by the occupiers. It is a matter of considerable difficulty to deal with people whose intelligence is so much at fault that they require to be prosecuted to clean their own houses, and one must put the trouble down not to defective legislation but to the degraded state of the individual who is content to exist under such conditions.

ARRANGEMENTS WITH MILITARY AUTHORITIES.

The troops in our district are accommodated in three main buildings:—

1. Croft Terrace Schools, which were given over to the Military Authorities in September and capable of holding 700 men. Before entry the schools were thoroughly inspected and examined, especially as to the sanitary arrangements. Alterations were made to suit the altered conditions and everything has proved quite satisfactory.
2. Old Drill Hall, Western Road.

3. New Drill Hall in Beech Street, which has just been completed this year and is constructed on the most modern lines.

Information was also sent to the Military Authorities as to—

1. Water supplies.

Disposal of refuse.

Drainage and conservancy arrangements.

Control of Infectious Disease, and the number of available beds in hospital.

The use of our steam disinfector for disinfecting bedding, blankets, etc.

2. Assistance of our Sanitary Inspectors whenever required.

3. A system of inter-notification of Infectious Disease, by which a weekly list was sent to the Medical Officer in charge of the local troops and also to the Senior Naval Officer, Tyne Port.

That the arrangements made have proved satisfactory is shown by the fact that only one case of infectious disease, viz: Diphtheria, was notified to us during the seven months they have been stationed in the district.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1914, FOR THE BOROUGH OF JARROW.

on the administration of the Factory and Workshop Act, 1901,
in connection with

Factories, Workshops, Workplaces and Homework.

1. INSPECTION. Including Inspections made by
Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspec- tions.	Written Notices.	Prosec- utions
Factories (Including Factory Laundries).	30	...	...
Workshops (Including Workshop Laundries).	134	3	...
Workplaces (Including other than Outworkers premises).	14	...	...
Total	178	3	...

2.—DEFECTS FOUND.

Particulars	Number of Defects.			Number of Prosecutions.
	Found.	Remd'd	Referred to H.M. Inspector.	
Nuisances under the Public Health Act.				
Want of Ventilation .....	...	...	...	...
Sanitary Accommodations				
Insufficient	3	2	...	...
Unsuitable or defective .....	...	...	...	...
Not separate for sexes .....	..	...	...	...
Other Nuisances .....	...	...	...	...
Breach of special sanitary require- ments for bakehouses .....	...	...	...	...
Total	3	2	...	...

3. HOMEWORK.

Nature of Work.	Outworkers' Lists, Section 107.		Inspection of Outworkers' Premises	
	Once in the year	Numbers of Addresses of Outworkers received and forwarded to other Councils.		
	Lists.	Out- workers		
Wearing Apparel— Making, etc. ...	1	...	NIL.	4

4.—REGISTERED WORKSHOPS.

Class.	Number.
Workshops on the Register (s. 131) at the end of the year.	
Bakehouses	14
Boot Repairing	12
Joinery	8
Laundries	5
Plumbers	5
Tailoring	5
Dressmaking	5
Printers	2
Picture Framing	1
Cabinet Makers	3
Blacksmiths	3
Cycle Repairing	1
Bottling Stores	3
Total number of Workshops on Register	67

5. OTHER MATTERS.

Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s 5)	Notified by H.M. Inspector ...	3
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Sanitary Inspector's Report.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,

I have the honour of presenting to you my Annual Report of the work carried out in the Sanitary Department during the year 1914.

The past year has been characterised by the extraordinary recurrence of Scarlet Fever, which necessitated the removal of 423 cases to the Isolation Hospital.

Owing to the introduction of mussels from contaminated sources we have also had an unusual number of Typhoid Fever cases. Thirty of them were removed to the Isolation Hospital, while two were isolated at home. In addition to Typhoid and Scarlet Fever, ten cases of Diphtheria were removed to the Hospital.

In compliance with the Circular issued by the Local Government Board, urging us to pay strict attention to our food supplies, as regards quality and wholesomeness, we have gone thoroughly into the work, and whilst finding that in the majority of cases our food supply is clean and wholesome, yet there have been several instances where food was being prepared under exceedingly dirty conditions, constituting in our opinion a grave danger to the community in the immediate vicinity. This was found to be the condition of several small porkbutchering shops, the regulations of which require strict and proper conditions of cleanliness, as regards storage, etc. There appears to be no regulations to meet such cases.

A large amount of work has been carried out, with very good results, under the regulations for the Inspection of houses.

A large number of houses have undergone adequate repairs, not only in compliance with notices served, but also voluntarily by the landlords. I have much pleasure in reporting to you that the inspection of all the houses in our two worst Wards, namely, the Central and the North Wards, is now completed.

Notifications.

Exclusive of Tuberculosis, we have received 640 notifications of Infectious Diseases.

The above cases were duly visited and isolated and all particulars, both of the cases and homes, noted.

Tuberculosis.

Altogether 297 Notifications of Tuberculosis have been received during the past year.

Our Health Visitor has investigated these cases, obtaining particulars which have been registered for future reference. Sputum Flasks, instruction sheets, and disinfectants, were supplied in all pulmonary cases and in cases of death or removal to Sanatorium the houses, bedding, and clothing were submitted to a thorough disinfecting, not only by fumigation with Formalin and steam, but also by the application of soaps and fluids, supplied gratis by the Corporation. These cases are further followed up by a Health Visitor resident in the Borough, who reports to us anything that is needed respecting these cases from time to time. This Health Visitor is supplied by and is under the control of the County Council.

Schools.

Owing to the prevalence of Scarlet Fever throughout the year, all our Schools have undergone disinfection by fumigation, spraying and washing with disinfectants.

Verminous and Dirty Children.

Dirty and Verminous Children are reported to our Department and the cases and houses investigated. If verminous conditions are found to be prevalent, the house and effects are fumigated and notices served upon the parents, notifying them to cleanse the house, bedding and persons of the children. Soap is supplied gratis for the cleansing of the heads of verminous children.

The Housing and Town Planning Act and Inspection of Houses.

During the past year 934 houses have been inspected under the above-named Act, and 937 under the Public Health Act. This makes a total of 1871 houses inspected during 1914. The inspection has been carried out principally in the North Ward. The following is the list:—

Princess Street.	Shakespeare Street.
Commercial Road.	Wylam Street.
George Street.	Edgar Street.
Alfred Street.	Nixon Street.
Ferry Street.	Stanley Street.
Chaytor Street.	Clayton Street.
Walter Street.	Union Street.
Ormonde Street.	Western Road.
North Street.	Duke Street.
Grange Road.	Berkley Street.
Ellison Street.	Short Row.
Ellison Place.	Prince Consort Road.
South Street.	Pearson Place
Market Square.	Spencer Street.
Milton Street.	Tyne Street.

We have completed the inspection of the North Ward and I beg to report that the old houses in Tyne Street, known as Dunkirk Place, are rapidly nearing a condition which will make them unfit for human habitation. The fronts of several of the

houses bulge badly, they are badly lighted, have damp foundations, their roofs are in poor condition and the sanitary conditions of the areas at the rear are very unsatisfactory. Owing to these houses being rubble-built, old and decayed, I do not think they can be repaired to any satisfactory extent.

The general defects found in the North Ward are as follows:—

Insufficient light.

Insufficient ventilation.

Leaking main roofs.

Defective floors.

Defective spoutings.

Defective plasterings.

Damp main walls.

Dangerous chimneys.

Dangerous stairs.

1340 houses were found satisfactory, while 531 were found in a defective condition. Of the latter, 391 houses have been repaired to our satisfaction, 12 have been partly repaired, while 128 notices remain uncomplied with. Many landlords have voluntarily carried out repairs to their properties, and on the whole the amount of repairs carried out in the Borough during the past year is highly satisfactory.

Foods and Drugs.

Of 40 samples of food submitted to the Public Analyst during the past year, 33 were certified as genuine and 7 samples were found a little below the standard.

In these cases the dairymen were cautioned by letter by order of the Council.

Unwholesome Foods.

The following foods being found unfit were surrendered by the dealers and destroyed by burning.

3 carcasses of beef weighing 165 stones.

28 pounds of Cheese.

6 cases of Tomatoes.

Dairies and Milkshops.

There are 74 registered milk-shops and dairies in the Borough. 586 visits have been paid to them during the past year and all were found to be in a satisfactory state of cleanliness.

Bakehouses.

The Bakehouses remain the same as last year. There are 14 altogether. All are on the ground floor and in a good state of repair, thus ensuring the provision of food under clean conditions.

Workshops.

The general condition of these shops is satisfactory. In three instances notices have been served at the request of the Factory Inspectors, for the provision of intervening spaces leading to the closets.

Slaughter Houses.

There are 27 registered slaughter houses in the Borough, an increase of two compared with last year. Seventeen are for cattle and ten for pigs and sheep. All are in compliance with the Borough Bye-Laws, and are lime-washed four times a year. Owing to the scarcity of chilled meat, more slaughtering of animals is necessitated, thus requiring the granting of two additional licences.

Diseases of Animals' Act.

Four suspected cases of Parasitic Mange were submitted to the Veterinary Surgeon, but the latter decided that none of the cases were infected.

Common Lodging Houses.

Nine Common Lodging Houses are situated in the Borough. Altogether 225 visits have been paid to them and, with one exception only, all were found to be in a clean and orderly condition. A notice was served in the one case for the improvement of conditions. Seven of these Lodging Houses are exclusively for males, while two are licensed for both sexes. These houses are inhabited mainly by workmen of the labouring class and in many cases constitute their permanent homes. The general sanitary condition is quite satisfactory.

The Removal of Night-Soil and Garbage and the Scavenging of Back Streets.

During the past year 8390 loads of night-soil, 300 loads of butchers' and fish offal, and 650 loads of shop debris have been removed from the Borough. The night-soil and fish and butchers' offal is partly disposed of to local farmers, while the rest is sent out to sea in the Hopper "Don." All waste paper and shop debris is burned in the furnace at No. 2 Quay.

The work entailed by the above has been carried out in a satisfactory manner throughout the year. The whole of the back streets have been swept weekly. During the summer the removal of night-soil has ceased at 7 a.m., while in the winter it has ceased at 8 a.m., except in cases of storm. The same applies to the removal of garbage.

Disinfection of Houses and Bedding.

875 houses and effects have been disinfected and 684 lots of bedding and clothing have been stoved at our Steam Disinfecter. The houses and bedding are first fumigated by the Formalin process and then the bedding and clothing are sent to our Steam Disinfecter. 183 of the above-named houses were cases of dirty and verminous conditions.

Military.

504 lots of bedding and clothing have been stoved at our Steam Disinfector for the health and comfort of the troops troops stationed at the various centres in the Borough, and disinfectants are allowed by the Corporation free. All the centres have been inspected and their sanitary conditions are satisfactory.



**I.—Summary of Work done in the Inspector of Nuisances'
Department during the Year 1914 in the
Urban Sanitary District of Jarrow.**

I.—PUBLIC HEALTH ACTS.	Number of informal written notices by the Inspector.	Number of Formal Notices by order of Authority.	Number of Nuisances abated after notice.	General Remarks.
Dwelling-houses and Schools—				
Foul Conditions	112	8	112	
Structural Defects	408	48	408	
Overcrowding	14	3	14	
Lodging-houses	18	..	18	
Dairies & Milkshops	4	..	4	
Cowsheds	4	..	4	
Bakehouses	28	..	28	
Slaughter-houses	52	..	52	
Ashpits and Privies .. ..	..	..	..	Bedding destroyed 114 lots
Deposits of Refuse and Manure	155	10	155	Accumulation of Manure 21
Waterclosets	1	..	1	Other rubbish 20.
Defective Yard Paving ..	236	11	236	
House Drainage—				
Defective Traps	89	13	89	
No Disconnection from Sewers	1	..	1	
Other Faults	143	6	143	viz Choked Drains.
Water Supply	5	..	5	
Pigsties .. ..	..	..	..
Animals improperly kept ..	8	..	8	
Offensive Trades .. ..	..	..	..
Smoke Nuisances	1	..	1	
Other Nuisances —				
Defective Closets	383	43	383	
Defective Outbuildings, etc.	395	36	395	
Dirty Yards and Closets ..	171	8	171	
Flooding of Ashclosets ..	153	2	153	
Limewashing of Staircases, Passages, Yards, etc. ..	630	630	630	
TOTALS	3011	188	3011	

II.—Inspector's Report.

	No.	Remarks.
II.—WATER, FOOD AND DRUGS		
		NATURE OF FOODS SEIZED
Samples of Water taken for Analysis ..	..
" " condemned as unfit	..	3 whole Carcasses of Beef
for use .. .. .	..	weighing 165 Stones.
Seizure of Unwholesome Food ..	10	28 lbs. of Cheese.
Convictions for exposing or selling un-	..	4 Cases of Tomatoes.
wholesome food .. .. .	..
Samples of Food and Drngs taken for	..	The Carcasses of Beef were
Analysis	40	all affected with Tuber-
Do found Adulterated ..	7	culosis.
III. PRECAUTIONS AGAINST INFECTIOUS DISEASE.		
Lots of Infectious Bedding, &c., stoved		
or destroyed	684	We have also disinfected
Houses disinfected after Infectious		366 rooms owing to vermin-
Disease	875	ous conditions and 684 lots
Schools do do	10	of Bedding and Clothing
Prosecutions for exposure of infected		have been stoved. We
persons or things .. .. .	..	have also stoved 504 lots of
Convictions do do .. .. .	..	Bedding and Clothing for
	..	the Soldiers at the Croft
	..	Terrace Schools.
IV.—GENERAL.		
Number of New Houses erected during		
the year	23	21 Self-contained and 2
Number of such Houses occupied during		divided into flats making 4
the year	23	Tenements.
Ashpit privies converted into Ash-closets	..	
Do. do Water-closets ..	..
Ash-closets do do	12	
Total number of Water-closets in District	740	
Do. Ash-closets do	4958	
Do. Ashpit-privies do .. .. .	..	None in the Borough.

JOHN S. CALLIS, A.R.S. Inst.,
Inspector of Nuisances.

March 1st, 1915.

